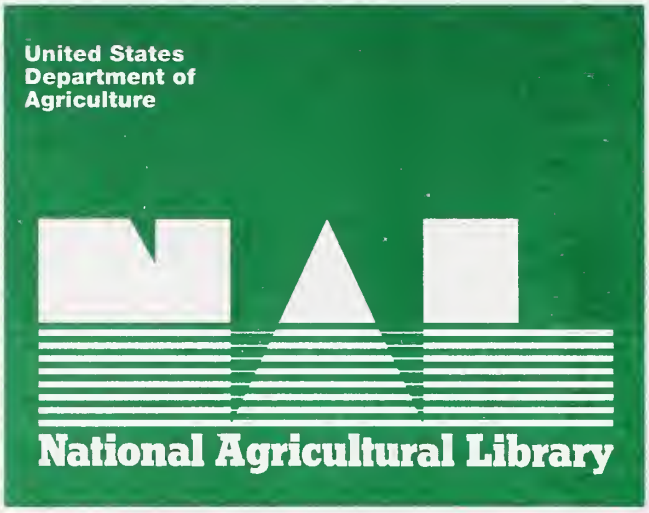
Maryland Water Resources Progress Report 1980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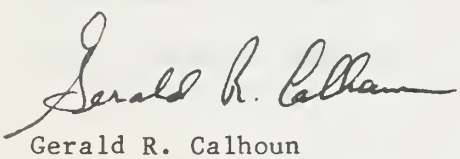
FOREWORD

This report summarizes the past achievements, current progress, and future plans of the Maryland Small Watershed Program (Public Law 83-566). It also presents the status of Flood Hazard Studies, Flood Insurance Studies, and River Basin Studies conducted by the Soil Conservation Service in the state of Maryland.



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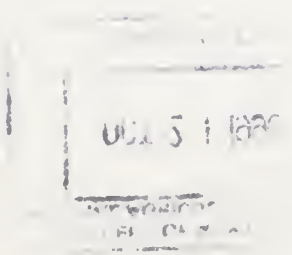
January 1981



MARYLAND

WATER RESOURCES PROGRESS REPORT

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SMALL WATERSHED PROGRAM

WATERSHEDS COMPLETED - 11

The installation of all structural and land treatment measures included as part of the original or revised work plans of the following watersheds has been completed.

Little Deer Creek
Little Youghiogheny
Timmonstown Branch
Gilbert Run
Upper Rock Creek
Long Marsh
Aydelotte
Ninepin Branch
Franklin Branch
Coonfoot Branch
Passerdyke

COMPLETED

LITTLE DEER CREEK WATERSHED

Application number - 1

Location - Harford County

Subwatershed of - The Susquehanna River Basin

Drainage area - 10,112 acres

Sponsored by - Harford Soil Conservation District

Application approved by State Committee - November 1954

Planning authorized - February 9, 1955

Plan approved - September 13, 1956

Project completed - June 30, 1970

Project purposes - Flood Prevention
Watershed Protection

Project measures - 3 flood control dams
Land treatment

Project Cost -

PL-566	-	$282,443
Other	-	$ 65,886
Total	-	$348,329

COMPLETED

LITTLE YOUGHIOHENY RIVER WATERSHED

Application number - 2

Location - Garrett County

Subwatershed of - The Ohio River Basin

Drainage area - 26,275

Sponsored by - Garrett Soil Conservation District
City of Oakland, Maryland
County Commissioners of Garrett County
Wilson Run Public Watershed Association

Application approved by State Committee - February, 1955

Planning authorized - April 15, 1955

Plan approved - March 14, 1957

Project completed - December 31, 1976

Project purposes - Flood Prevention
Recreation
Municipal Water Supply
Watershed Protection

Project measures - 5 single purpose flood water retarding structures
1 multiple purpose impoundment
Land treatment

Project Cost -

PL-566	-	$1,770,544
Other	-	$ 852,496
Total	-	$2,623,040

COMPLETED

TIMMONSTOWN BRANCH WATERSHED

Application number - 3

Location - Worcester County

Tributary to - Pocomoke River

Drainage area - 8,655 acres

Sponsored by - Worcester Soil Conservation District
Board of County Commissioners of Worcester County

Application approved by State Committee - March 1955

Planning authorized - August 25, 1955

Plan approved - May 21, 1957

Project completed - June 30, 1963

Project purposes - Flood Prevention
Agricultural Water Management (Drainage)
Watershed Protection

Project measures - 28.3 miles of channel work
Land treatment

Project Cost -

PL-566	-	$203,745
Other	-	$150,263
Total	-	$354,008

COMPLETED

GILBERT RUN WATERSHED

Application number - 4

Location - Charles and St. Marys County

Tributary to - Potomac River

Drainage area - 28,622

Sponsored by - Charles and St. Marys Soil Conservation Districts
Charles County Commissioner
Gilbert Run Public Watershed Association
Charles County Board of Parks and Recreation

Application approved by State Committee - October 1955

Planning authorized - January 6, 1956

Operations authorized - August 7, 1959

Project completed - December 31, 1976

Project purposes - Flood Prevention
Recreation
Watershed Protection

Project measures - 2 Flood water retarding structures
1 multiple purpose
11.2 miles of channel work
Land treatment

Project Cost -

PL-566	-	$2,946,597
Other	-	$ 702,662
Total	-	$3,649,259

COMPLETED

UPPER ROCK CREEK WATERSHED

Application number - 5

Location - Montgomery County

Tributary to - Potomac River

Drainage area - 38,765 acres

Sponsored by - Montgomery Soil Conservation District
Montgomery County
Maryland-National Capital Park and Planning Commission

Application approved by State Committee - December 1956

Planning authorized - January 8, 1957

Operations authorized - June 20, 1963

Project completed - June 30, 1973

Project purposes - Flood Prevention
Recreation
Fish and Wildlife
Watershed Protection

Project measures - 2 Multiple purpose dams
Land treatment

Project Cost -
PL-566 - $1,414,322
Other - $2,822,8803
Total - $4,237,202

COMPLETED

LONG MARSH WATERSHED

Application number - 8

Location - Queen Annes and Caroline Counties

Tributary to - Choptank River

Drainage area - 27,363 acres

Sponsored by - Queen Annes County Commissioners
Queen Annes Soil Conservation District
Caroline County Commissioners
Caroline Soil Conservation District

Application approved by State Committee - July 1957

Planning authorized - April 15, 1958

Operations authorized - August 31, 1960

Project completed - June 30, 1975

Project purposes - Flood Prevention
Agricultural Water Management (Drainage)
Watershed Protection

Project measures - 115.1 miles of channel work
Land treatment

Project Cost -

PL-566	-	$1,021,901
Other	-	$ 407,992
Total	-	$1,429,893

COMPLETED

AYDELOTTE WATERSHED

Application number - 10

Location - Wicomico County

Tributary to - Pocomoke River

Drainage area - 12,470 acres

Sponsored by - Wicomico Soil Conservation District
Wicomico County Commissioners
Aydelotte Drainage Association

Application approved by State Committee - September 1959

Planning authorized - August 15, 1961

Operations authorized - August 30, 1962

Project completed - July 1, 1971

Project purposes - Flood Prevention
Agricultural Water Management (Drainage)
Watershed Protection

Project measures - 64.8 miles of channel work
Land treatment

Project Cost -
PL-566 - $520,132
Other - $260,000
Total - $780,132

COMPLETED

NINEPIN BRANCH WATERSHED

Application number - 11

Location - Worcester County

Tributary to - Pocomoke River

Drainage area - 6,300 acres

Sponsored by - Worcester Soil Conservation District
Worcester County Commissioners

Application approved by State Committee - July 26, 1961

Planning authorized - June 18, 1962

Operations authorized - April 1, 1963

Project completed - June 30, 1968

Project purposes - Flood Prevention
Agricultural Water Management (Drainage)
Watershed Protection

Project measures - 21 miles of channel work
Land treatment

Project Cost -

PL-566	-	$167,384
Other	-	$ 94,843
Total	-	$262,227

COMPLETED

FRANKLIN BRANCH WATERSHED

Application number - 12

Location - Worcester County

Tributary to - Pocomoke River

Drainage area - 3,162 acres

Sponsored by - Worcester Soil Conservation District
Worcester County Commissioners

Application approved by State Committee - July 25, 1961

Planning authorized - May 20, 1963

Operations authorized - June 2, 1964

Project completed - May 31, 1969

Project purposes - Flood Prevention
Agricultural Water Management (Drainage)
Watershed Protection

Project measures - 12.1 miles of channel work
Land treatment

Project Cost -

PL-566	-	$ 82,461
Other	-	$ 55,204
Total	-	$137,665

COMPLETED

COONFOOT BRANCH WATERSHED

Application number - 13

Location - Worcester County

Tributary to - Pocomoke River

Drainage area - 3,752 acres

Sponsored by - Worcester Soil Conservation District
Worcester County Commissioners

Application approved by State Committee - July 26, 1961

Planning authorized - May 20, 1963

Operations authorized - June 30, 1964

Project completed - May 31, 1969

Project purposes - Flood Prevention
Agricultural Water Management (Drainage)
Watershed Protection

Project measures - 13.1 miles of channel work
Land treatment

Project Cost -

PL-566	-	$ 89,795
Other	-	$ 58,708
Total	-	$148,503

COMPLETED

PASSERDYKE WATERSHED

Application number - 24

Location - Somerset, Worcester and Wicomico Counties

Subwatershed of - Chesapeake Bay

Drainage area - 7,840 acres

Sponsored by - Wicomico, Somerset, and Worcester Soil Conservation Districts Wicomico, Somerset, and Worcester County Commissioners

Application approved by State Committee - November 15, 1963

Planning authorized - July 26, 1965

Operations authorized - May 24, 1966

Completion Date - June 30, 1976

Project purposes - Flood Prevention
Agricultural Water Management (Drainage)
Watershed Protection

Project measures - 32.2 miles of channel work
Land treatment

Project Cost -

PL-566	-	$526,966
Other	-	$189,000
Total	-	$715,966

WATERSHEDS APPROVED FOR OPERATIONS - 8

The following watersheds have been approved for operations (installation).

Marshyhope
Shingle Landing
Dividing Creek
Upper Choptank River
Upper Manokin
Goldsboro
St. Mary's River
Piney Run

OPERATIONAL

MARSHYHOPE CREEK WATERSHED

Caroline and Dorchester Counties Maryland
Kent and Sussex Counties, Delaware

Application Number 9
Delaware has Administrative Responsibility

Project in Brief: Authorized August 19, 1964. Area - 100,600 acres (Maryland 40,240 acres, Delaware 60,360 acres). Aside from minor land holdings by the State of Maryland, land ownership is private. Sponsors - Delaware Department of Natural Resources and Environmental Control; Caroline and Dorchester Soil Conservation Districts; County Commissioners of Caroline and Dorchester counties; and the Town of Federalsburg, Maryland. Estimated total project costs - (Maryland Only) $6,860,582 ($4,578,154 PL-566 and $2,282,428 other). Principal problems - damage to agricultural land, towns, and roads by floodwater and poor drainage. Land use (total for Delaware and Maryland) - cropland 39 percent, grassland 7 percent, woodland 52 percent, other 2 percent.

Progress in Land Treatment: Of the 798 farmers in the project, 451 are district cooperators and 351 have basic farm conservation plans. Seventy percent of the land in the watershed is adequately protected.

Progress in Structural Measures: In Maryland the flood control channel through the Town of Federalsburg, and 75.5 miles of multiple-purpose channel has been completed at a construction cost of $1,350,697. In 1980 construction was completed on 27.7 miles of channel work in the Faulkner Branch P.D.A. and on 7.5 miles, Newport Meadow P.D.A. The 7.2 miles of channel work on Twiford Meadow P.D.A. and 1.5 miles on Bradley Todd P.D.A. should be completed in 1981.

SHINGLE LANDING WATERSHED
Worcester County

Application Number 14

Project in Brief: Authorized - November 26, 1968. Area - 13,609 acres of which 7,092 acres is cropland, 190 acres is pasture, 5,699 acres is woodland, and 628 acres is in other uses. One hundred percent of the land is in private ownership. Sponsors - Worcester Soil Conservation District and the County Commissioners of Worcester County. Estimated total project cost - $1,363,848 ($888,274 PL-566 and $475,574 other). Principle problems - combination of floodwater and inadequate drainage.

Progress in Land Treatment: There are 161 operating units in the watershed of which 81 are district cooperators with 8,695 acres and 80 have basic conservation plans on 8,523 acres. Three hundred twenty-seven thousand, seven hundred fifty-six feet of surface field ditches, 4,665 feet of subsurface drains, 6 farm ponds, and one agricultural waste management lagoon have been installed to date. Planned forestry practices include 80 acres of managed woodland and five management plans involving 150 acres of woodland to reduce runoff and to recharge groundwater. These will be installed with the assistance of the Maryland State Department of Forests and Parks in cooperation with the U.S. Forest Service. Forest land treatment accomplished totals 160 acres of planting loblolly pine and hydrological treatment. Two woodland management plans, covering 46 acres, have been written. One wildlife habitat development covering 28 acres is now developed. To date, 85 percent of planned cropland treatment and 120 percent of forest land treatment is accomplished. Ninety percent of the watershed is adequately protected.

Progress in Structural Measures: All of the design surveys for the project's 49.5 miles of channel work are completed. Twenty-nine point seven miles of multiple purpose channel have been constructed at a cost of $314,478. Structural measures are 60 percent complete.

OPERATIONAL

DIVIDING CREEK WATERSHED
Wicomico, Worcester, and Somerset Counties

Application Number 15

Project in Brief: Authorized - July 19, 1974. Estimated completion - fiscal year 1981. Area - 41,900 acres (17 percent cropland, 82 percent forest land, and 1 percent other uses). Sponsors - the Soil Conservation Districts of Wicomico, Somerset, and Worcester Counties; the Wicomico County Council; and Worcester and Somerset County Commissioners. The above sponsors formed the Dividing Public Drainage Association in May 1975. Estimated total cost of the project is $2,914,587. PL-566 funds will bear $1,765,167 of this cost with the remaining $1,149,420 to be borne by other funds. Major watershed problems consist of inadequate drainage and periodic flooding to agricultural land and to roads and bridges at road crossings.

Progress in Land Treatment: There are 369 operating units, (mostly family owned), involving 37,111 acres within the watershed. There are 176 signed cooperative agreements covering 33,712 acres. One hundred fifty-five units involving 19,539 acres have basic conservation plans. Three hundred forty-seven thousand, nine hundred forty-five feet of drainage mains and laterals and 18,580 feet of subsurface drains have been installed to date. Seventeen ponds have been completed. Forestry accomplishments to date consist of tree planting on 492 acres; 708 acres of softwood sites preparation; and 2,072 acres woodland improved harvesting. To date, 55 percent of the planned land treatment has been applied.

Progress in Structural Measures: Construction on Unit No. 1 was completed on June 13, 1977. Total construction cost was $692,522. A total of 56.2 miles of channel was constructed; 404 water control structures installed; and 228.2 acres of critical areas were seeded. The 9.6 miles of channel work on Tony's Branch was completed. The contract cost was $135,199.

UPPER CHOPTANK RIVER WATERSHED
Caroline and Queen Anne's Counties, Maryland
Kent County, Delaware

Application Number 16
Delaware has Administrative Responsibility

Project in Brief: Authorized September 10, 1965. Area - 57,000 acres (46,740 acres in Delaware, 10,260 acres in Maryland). Nearly all land is in private ownership. Sponsors - Delaware Department of Natural Resources and Environmental Control; Caroline and Queen Anne's County Commissioners, Maryland. The total estimated project cost (Maryland Only) - $1,902,449 ($1,183,337 PL-566 and $724,072 other). Principle problems - inadequate drainage and periodic flooding to agricultural land, towns, and roads. Land use - cropland 46 percent, grassland 8 percent, woodland 46 percent.

Progress in Land Treatment: Of the 490 farmers in the project, 460 are district cooperators and 321 have basic farm conservation plans. Fifty percent of the land in the watershed is adequately protected.

Progress in Structural Measures: In Maryland, 23.2 miles of channel have been installed at a construction cost of $323,253. In 1980, construction was completed on 3.2 miles of channel work on Henderson P.D.A. and 5.6 miles, Temple Road P.D.A. Three miles of channel work on Smith Leslie P.D.A. should be completed in 1981.

UPPER MANOKIN WATERSHED
Somerset County

Application Number 22

Project in Brief: Authorized - December 1, 1965. Area - 7,883 acres. Sponsors - Somerset Soil Conservation District, Somerset County Commissioners, and the town of Princess Anne. Estimated total cost - $1,359,327 ($731,187 PL-566 and $628,140 other). Principal problems - flooding and inadequate drainage on farm lands, floodwater damage to roads and bridges, and the need for water based recreational facilities. The average farm size is 85 acres and all but 4 are family farms. Approximately 125 parcels are located outside the town limits and have cropland and/or forest land. Approximately 65 percent of the area is in forest cover, 28 percent is cropland and pasture, and 7 percent is in other uses.

Progress in Land Treatment: There are 93 operating units, involving 6,827 acres within the watershed. Forty-six operating units totaling 3,927 acres are under cooperative agreement with the Somerset Soil Conservation District. Forty-five of the farms, totaling 3,816 acres have basic conservation plans. An estimated 162,104 feet of open drainage has been completed to date. One thousand, seven hundred and one acres of conservation cropping systems, 1,399 acres of crop residue management; 10 acres of pasture and hay land plantings, and 49 acres of pasture and hay land management have been applied to date. Two hundred acres of minimum tillage have been completed. Two ponds are managed for fish production. To date, forestry accomplishments consist of 331,600 trees planted on 390 acres. Two hundred twenty-eight acres of woodland improvement have been completed. Eighty percent of the watershed is adequately protected.

Progress In Structural Measures: Construction of 23.9 miles of channels and 35 water control structures was completed February, 1972, for $135,998. One hundred percent of the channel work is complete. The sponsors have secured most of the land rights needed for the fish and wildlife structure. However, in October 1978, the watershed was placed on the inactive list because of unavoidable adverse impacts associated with installation of the proposed fish and wildlife structure. No further assistance will be provided by SCS.

Case Histories of Watershed Project Benefits: A six-inch rainstorm in less than ten hours occured on August 29, 1969. Farmers in the watershed reported no damage from the storm. There was some damage to the channel, however. On June 22 and 23, 1972, during Hurricane Agnes, no particular damage was done other than a washout of small water control structure. Approximately 4 to 5 inches of rain fell during the two-day period.

From August 20 through April 21, 1973, 6.98 inches fell in the watershed in about a 12-hour period. Overall, damage throughout the project area was considered minor.

GOLDSBORO WATERSHED
Caroline County

Application Number 25

Project in Brief: Authorized - August 25, 1967. Area - 9,250 acres (all privately owned). Sponsors - Caroline County Commissioners, Caroline Soil Conservation District, Broadway Public Drainage Association. Estimated total cost - $1,613,469 ($1,008,609 PL-566 and $640,860 other). Principal problems - floodwater damage, sediment damage, erosion damage and water management problems. Most farms are owner-operated with 3,985 acres of cropland, 466 acres of pastureland, 4,415 acres of woodland, and 474 acres in other uses.

Progress in Land Treatment: Of the 124 farmers in the project, 42 are district cooperators with 6,491 acres. There are 35 farmers with basic plans on 5,333 acres. To date, 48 percent of planned land treatment is accomplished. Fifty-nine percent of the watershed is adequately protected.

Progress in Structural Measures: Approximately 60 percent of the design surveys are complete. The Broadway Public Drainage Association has been completed. Twenty-six point eight miles of multiple purpose channel work or about 50 percent of the total has been installed at a cost of $247,420. An Environmental Impact Statement will be required before the remainder of the project can be constructed.

Case Histories of Watershed Project Benefits: Several farmers in the Broadway system have reported that they are now able to plant and harvest their crops on time without the losses that they expected before the system was installed. With Broadway construction complete, farmers in the watershed are starting to improve on-farm drainage by installing open drains and tile systems. There was an increase in no-till soybeans in the area of the completed works of improvement. During the spring of 1979 a fertilizer dealer stated that he could send his lime trucks to the Broadway area when it was too wet to spread lime in other parts of the county.

ST. MARY'S RIVER WATERSHED
St. Mary's County

Application Number 27

Project in Brief: Authorized - September 29, 1970. Area - 20,000 acres all privately owned, much of it wooded. There are approximately 700 acres of developed land in the upper reaches of the watershed with the town of Great Mills being the principal recipient of flood control benefits. Land use - 12 percent cropland, 5 percent pasture, 73 percent woodland, and 10 percent other. Sponsors - the St. Mary's Soil Conservation District, St. Mary's Board of County Commissioners, and the Maryland Department of Natural Resources. The two multiple purpose structures will be operated by the State. One is maintained by the Maryland Department of Natural Resources as a fish and wildlife structure. The second will form the nucleus of a state park. Total estimated project cost - $8,543,391 ($3,926,285 PL-566 and $4,617,106 other).

Progress in Land Treatment: Of the 151 operating units (13,960 acres), 70 units totaling 9,816 acres are under cooperative agreement with the St. Mary's Soil Conservation District. Conservation plans covering 4,564 acres have been written on 54 farms. Forty-three percent of the planned land treatment has been completed on the cropland and more than 79 percent of grassland and woodland. Major practices installed to date include 6,280 feet of field ditches, 4,850 feet of diversions, 125 acres of stripcropping, 13 farm ponds, 320 acres of pasture management, 688 acres of crop residue management, and 1,445 acres of conservation cropping systems. Eighty-two percent of the watershed is adequately protected.

Forestry accomplishments to date include over 223,000 trees planted on 400 acres, 190 acres marked for harvest, 147 acres of hardwood stand improvement by thinning or weeding, 25,120 feet of fire road laid out and constructed, and 312 management plans on 3,337 acres.

In addition to agricultural land treatment, urban sediment plans were carried out on 5 subdivisions and site plans for several small commercial buildings. Three permanent water management ponds have been constructed in subdivisions.

Progress in Structural Measures: Five structures planned; 2 multiple purpose and 3 single purpose. Construction of Site #1 has been completed at a cost of $790,756. A supplemental contract to do additional clearing within the flood pool has been completed. The valves have been closed to raise the water level to the first stage and the lake has been stocked with fish. The structural program is 20 percent completed. The design of site #2 is 95 percent completed. The three single purpose structures will be deleted from the plan.

Sixteen out of the 23 properties needed for Site 2 have been obtained. Negotiations are continuing for the balance (104 acres at a cost of $115,000). Land rights work to date: Site 1 - 15 landowners, $35,900 (all local cost); Site 2 - $1,540,000 has been expended to date for land rights. Of this amount, $352,000 has been borne by PL-566 and the remaining $1,188,000 has been borne by the sponsors.

An agreement between the Department of Transportation acting for the Department of Natural Resources and the Soil Conservation Service was signed December 15, 1975 to handle displacements at Site #2. The total cost is estimated to be $93,300 with the federal share estimated to be $41,600. To date $17,800 has been expended involving five landowners or occupants. The PL-566 share was $7,700 and the local share was $10,100. Planned additional activities will involve two other landowners for an estimated cost of $75,500. This will complete the relocation portion of the project.

Benefits: During Hurricane David, (September 1979), Site 1 stored and released an estimated ten feet of storm water. The principle spillway was flowing full and the stream below the dam was running just at bank level. The town of Great Mills had some flooding, but was protected from much worse flooding by the completed structure.

OPERATIONAL

PINEY RUN WATERSHED
Carroll County

Application Number 32

Project in Brief: Authorized - August 29, 1969. Area - 11,700 acres. Land use - 56 percent cropland, 19 percent pasture, 25 percent woodland and other. Eighty-seven percent of the watershed is in private ownership. Sponsors - Carroll Soil Conservation District, the Carroll County Commissioners, the Carroll County Recreation and Parks Board, the Carroll County Sanitary Commission, and the State of Maryland. The primary problems in the watershed were floodwater damages to roads, bridges, residences, industrial and commercial enterprises; inadequate water supply, and a need for water based recreational facilities. Estimated total cost - $3,222,617 ($887,617 - PL-566 and $2,335,000 other).

Progress in Land Treatment: Of the 53 farms in the project, 30 are district cooperators (including the County Commissioners and their lands for the flood control dam and lake area). All of the district cooperators have basic conservation plans. Essentially all of the land treatment planned under the accelerated program has been applied.

Progress in Structural and Recreational Measures: The construction of the dam is now complete and the lake is filled to the normal water level. The county commissioners have completed construction of the first recreation area which consists of two boat ramps, three parking areas (two for the boating area and one for the picnicking and active recreation area), two tennis courts, two comfort stations (one for the boat ramp area and one for the picnic area), and several small picnic table areas. Three floating piers have been installed and an additional picnic area developed in 1977. During 1979 the County Department of Parks and Recreation developed plans for the construction of a nature center to be constructed within the planned recreation area. Construction has begun on the installation of the service road and basic facilities for the center and the county began construction of the Nature Center Building early in the Spring of 1980. Construction of the dam and associated appurtenances cost $883,722. The recreational facilities are being installed at a total local cost estimated to be $1,000,000. Forty landowners were involved in land rights acquisitions. The total land rights cost was $850,000 with PL-566 bearing $169,000. Five occupied dwellings and one farm operation were involved in relocations at an estimated cost of $65,000.

Case Histories of Watershed Project Benefits: From September 21 to 25, 1975, rainwater from Hurricane Eloise fell in the Carroll County (Piney Run Watershed) area. Many of the county's low-lying areas were flooded. The flood control dam performed its function as planned with only very minor maintenance work needed following the storm. Springfield State Hospital complex, location approximately one mile below the dam, suffered severe flooding of their service facilities during 1972 (Agnes) but experienced no interruptions of services during Eloise because of the Piney Run flood control project.

WATERSHEDS IN PLANNING - 3

The following watersheds are in various stages of detailed planning which is being accomplished in accordance with the requirements of the National Environmental Policy Act and the Council on Environmental Quality's guidelines.

Upper Casselman
Seneca Creek
Upper Chester River

UPPER CASSELMAN RIVER WATERSHED

Application Number - 31

Location - Garrett County Maryland
Somerset County Pennsylvania

Subwatershed of - Ohio River Basin

Drainage area - 84,100 acres

Sponsored by - Maryland:
Garrett County Soil Conservation District
Garrett County Commissioners
Allegany County Commissioners
Town of Grantsville
Grantsville City Council
Allegany Sanitary Commission
Pennsylvania:
Somerset County Soil and Water Conservation District

Application approved by State Committee - February 21, 1966

Planning authorized - December 9, 1969

Project Purposes - Flood Prevention
Municipal Water Supply
Recreation
Watershed Protection

Planned Measures - Multiple purpose impoundments

Status - The local sponsors re-affirmed their interest in the proposed flood prevention, recreation, and water supply project in a letter dated January 1979. An up-dated field examination report is planned for 1981.

SENECA CREEK WATERSHED

Application Number - 36

Location - Montgomery County

Subwatershed of - Potomac River

Drainage area - 82,479

Sponsored by - Montgomery Soil Conservation Service
Montgomery County Council
Montgomery County Planning Board

Application approved by State Committee - February 17, 1969

Planning authorized - June 30, 1975

Project Purposes - Water Quality Improvement
Watershed Protection

Planned Measures - Erosion control practices
Animal waste management systems

Status - Subsequent to distribution of a draft Environmental Impact Statement in January 1978, the sponsors opted to modify the purpose of the proposed structure from flood prevention/recreation to emergency water supply/recreation and to proceed with funding outside PL-566. The watershed staff has since developed a plan for land treatment in the watershed which complements the locally planned water supply project. The SCS plan proposes to improve water quality through reduction of erosion, sedimentation, and animal waste runoff. The final watershed plan is expected to be published in the spring of 1981.

UPPER CHESTER RIVER WATERSHED

Application Number - 41

Location - Kent and Queen Anne's Counties, Maryland.
Kent and New Castle Counties, Delaware

Tributary to - The Chesapeake Bay

Drainage area - 90,000 acres

Sponsored by - Kent and Queen Anne's County Commissioners, Maryland
Kent and Queen Anne's Soil Conservation Districts,
Maryland Department of Natural Resources and
Environmental Control, Delaware

Application approved by State Committee - January 20, 1972

Planning authorized - February 2, 1977

Project Purposes - Flood Prevention,
Agricultural Water Management (Drainage)
Watershed Protection

Planned Measures - Approximately 100 miles of channel work and
associated measures

Status - A preliminary draft of the Watershed Plan and Environmental Impact Statement was distributed in October 1979. A final plan and EIS will be completed in the summer of 1981.

FIELD EXAMINATION STAGE - 3

The following watersheds have had their applications approved by the State Soil Conservation Committee but have not received planning approval by the Chief of the Soil Conservation Service. The Field Examination Report will serve as a feasibility study for granting PL-566 planning assistance.

Middletown Branch
Forge Branch
Mattawoman

MIDDLETOWN BRANCH WATERSHED

Application Number - 30

Location - Dorchester County

Tributary to - Chesapeake Bay

Drainage area - 6,748 acres

Sponsored by - Dorchester Soil Conservation District
Dorchester County Commissioners

Application approved by State Committee - October 15, 1965

Project Purpose - Flood Prevention
Agricultural Water Management (Drainage)
Watershed Protection

Status - In June of 1968 a Preliminary Investigation Report was published which proposed 13.4 miles of channel work. Due to environmental concerns the sponsors have retained a consultant to make an environmental evaluation of the proposed project and of a wetland by-pass alternative at the lower end of the watershed. Prior to gaining detailed planning authorization, a Field Examination Report will be written to reflect the findings of the environmental evaluation.

FIELD EXAMINATION

FORGE BRANCH WATERSHED

Application Number - 35

Location - Caroline County

Tributary to - Choptank River

Drainage area - 14,500 acres

Sponsored by - Caroline Soil Conservation District
Caroline County Board of Commissioners

Application approved by State Committee - June 17, 1968

Project Purpose - Flood Prevention
Agricultural Water Management (Drainage)
Watershed Protection

Status - A field Examination Report will be completed by the end of 1981 if staff and funds are available.

FIELD EXAMINATION

MATTAWOMAN CREEK WATERSHED

Application Number - 39

Location - Prince Georges and Charles Counties

Tributary to - Potomac River

Drainage area - 50,468 acres

Sponsored by - Prince Georges Soil Conservation District
Maryland National Capital Park and Planning Commission
Board of County Commissioners, Prince Georges County
Charles Soil Conservation District
County Commissioners of Charles County
Maryland Department of Forests and Parks

Application approved by State Committee - March 15, 1971

Project Purpose - Flood Prevention
Watershed Protection

Status - A draft Field Examination Report was completed in December 1978. A Flood Hazard Study is underway and is planned to be completed in 1981. The information from the Flood Hazard Study will be used to determine if further PL-566 studies are warranted.

WATERSHEDS WITH APPLICATIONS PENDING - 6

The following watersheds have had their applications approved by the State Soil Conservation Committee but have not been authorized for planning assistance by the Chief of the Soil Conservation Service.

Rehobeth Branch
Marumsco
Turkey Branch
Kings Creek
Pocomoke River
Patapsco

APPLICATION PENDING

REHOBETH BRANCH WATERSHED

Application number - 18

Location - Somerset County

Subwatershed of - Chesapeake Bay

Drainage area - 5,000 acres

Sponsored by - Somerset Soil Conservation District
Somerset County Commissioners

Application approved by State Committee - July 2, 1962

Project Purposes - Flood Prevention
Agricultural Water Management (Drainage)
Watershed Protection

Status - Some engineering and biological work was done in the early 1970's, however, since then no additional work has been undertaken.

APPLICATION PENDING

MARUMSCO WATERSHED

Application number - 19

Location - Somerset County

Subwatershed of - Chesapeake Bay

Drainage area - 14,000 acres

Sponsored by - Somerset Soil Conservation District
Somerset County Commissioners

Application approved by State Committee - July 2, 1962

Project Purposes - Flood Prevention
Agricultural Water Management (Drainage)
Watershed Protection

Status - Because the 1962 Field Examination Report indicated that economic justification of the project depended upon enhancement type benefits, which involved bringing new cropland into production, this project was given a low priority.

APPLICATION PENDING

TURKEY BRANCH WATERSHED

Application number - 20

Location - Somerset County

Subwatershed of - Chesapeake Bay

Drainage area - 3,000 acres

Sponsored by - Somerset Soil Conservation District
Somerset County Commissioners

Application approved by State Committee - July 2, 1962

Project Purposes - Flood Prevention
Agricultural Water Management (Drainage)
Watershed Protection

Status - No action has been taken on this watershed.

APPLICATION PENDING

KINGS CREEK WATERSHED

Application number - 21

Location - Somerset County

Subwatershed of - Chesapeake Bay

Drainage area - 9,096 acres

Sponsored by - Somerset Soil Conservation District
Somerset County Commissioners

Application approved by State Committee - July 2, 1962

Project Purposes - Flood Prevention
Agricultural Water Management (Drainage)
Watershed Protection

Status - No Action has been taken on this watershed.

APPLICATION PENDING

POCOMOKE RIVER WATERSHED

Application number - 37

Location - Somerset, Worcester, and Wicomico Counties Maryland
Sussex County Delaware
Accomack County Virginia

Tributary to - Chesapeake Bay

Drainage area - 236,315 acres

Sponsored by - Somerset County Commissioners
Wicomico County Council
Wicomico Soil Conservation District
Worcester Soil Conservation District
Worcester County Commissioners
Somerset Soil Conservation District
Delaware Soil and Water Conservation Commission
Eastern Shore Soil and Water Conservation District

Application approved by State Committee - December 15, 1969

Project Purposes - Flood Prevention
Agricultural Water Management (Drainage)
Watershed Protection

Status - The Pocomoke River Basin Study is currently in progress and is expected to be completed in late 1981. The results of this study will be used to evaluate the potential for further PL-566 assistance.

APPLICATION PENDING

PATAPSCO RIVER WATERSHED

Application number - 38

Location - Anne Arundel, Carroll, Baltimore, and Howard Counties

Tributary to - Chesapeake Bay

Drainage area - 234,000

Sponsored by - Carroll Soil Conservation District
Carroll County Commissioners
Howard Soil Conservation District
Howard County Commissioners
Baltimore Soil Conservation District
Baltimore County Council
Mayor & City Council of Baltimore
Anne Arundel Soil Conservation District
Anne Arundel County Council
Maryland Port Authority

Application approved by State Committee - December 21, 1970

Project Purposes - Flood Prevention
Recreation
Water Supply
Watershed Protection

Status - A Draft River Basin Study investigating the feasibility of a PL 83-566 project, environmental impacts of such a project, and the willingness of local government to support a PL 83-566 project was completed in October 1979. The final report was completed in March 1980. See page 53 for a summary of the study findings.

WATERSHEDS WITH PLANNING SUSPENDED OR TERMINATED - 10

The following watersheds have been approved for planning but have had planning assistance suspended pending resolution of specific problems or terminated due to a variety of technical and procedural impasses.

Little Antietam
Little Beaver
Corsica River
Western Run
Big Pipe Creek
Little and Middle Patuxent
Catoctin Creek
Big and Little Elk Creek
Piscataway Creek
Beaver Dam Creek

TERMINATED

LITTLE ANTIETAM WATERSHED

Application number - 6

Location - Washington County

Subwatershed of - Potomac River Basin

Drainage area - 20,119 acres

Sponsored by - Washington Soil Conservation District
Washington County Commissioners
Little Antietam Public Watershed Association
Maryland Department of Water Resources

Application approved by State Committee - May 1957

Planning authorized - April 15, 1958

Planning terminated - June 1, 1976

Project purposes - Flood Prevention
Municipal Water Supply
Watershed Protection

Planned measures - 2 Multiple purpose impoundments
2 Floodwater retarding dams

Status - A work plan was published in October 1970, however, planning was terminated June 1, 1976 because of little local interest in the project.

TERMINATED

LITTLE BEAVER WATERSHED

Application number - 7

Location - Washington County

Subwatershed of - Potomac River Basin

Drainage area - 5,500 acres

Sponsored by - Washington Soil Conservation District
Washington County

Application approved by State Committee - May 1957

Planning authorized - April 15, 1958

Planning terminated - April 1966

Project purposes - Flood Prevention
Watershed Protection

Status - Planning was suspended in December 1960 when it became apparent that it was not possible to develop a feasible solution to the flooding problem. Planning was terminated in April of 1966. Prior to that, in November 1965 the watershed was made part of the Appalachia Water Resource Study which was completed in April 1967.

TERMINATED

CORSICA RIVER WATERSHED

Application number - 17

Location - Queen Annes County

Subwatershed of - Chesapeake Bay

Drainage area - 15,865 acres

Sponsored by - Queen Annes Soil Conservation District
Queen Annes County Commission

Application approved by State Committee - July 2, 1962

Planning authorized - July 26, 1965

Planning terminated - February 26, 1971

Project purposes - Flood Prevention
Recreation
Agricultural Water Management (Drainage)
Watershed protection

Planned measures - 1 multiple purpose dam
Channel work
Land treatment

Status - The County Commissioners, one of the sponsors, have indicated they are not willing and able to carry out the work plan at this time. The State Conservationist terminated planning assistance as of February 26, 1971.

TERMINATED

WESTERN RUN WATERSHED

Application number - 23

Location - Baltimore County

Subwatershed of - Chesapeake Bay

Drainage area - 55,000 acres

Sponsored by - Baltimore Soil Conservation District

Application approved by State Committee - August 13, 1962

Planning suspended - April 1976

Project purposes - Flood Prevention
Watershed protection

Status - Planning has been suspended as a result of findings presented to the local people in April 1976 which indicated conventional SCS approaches to providing flood prevention in this watershed were not appropriate. A flood hazard analyses report was prepared for a portion of this watershed in 1975.

SUSPENDED

BIG PIPE CREEK WATERSHED

Application number - 26

Location - Carroll County

Subwatershed of - Potomac River Basin

Drainage area - 123,520 acres

Sponsored by - Carroll Soil Conservation District
Carroll County Commissioners

Application approved by State Committee - December 4, 1964

Planning authorized - December 18, 1967

Plan and EIS completed - June 1976

Planning Suspended - May 1977

Project purposes - Flood Prevention
Municipal Water Supply
Recreation
Watershed protection

Planned measures - 1 multiple purpose impoundment
Land treatment

Status - The watershed plan and Environmental Impact Statement was transmitted to Office of Management and Budget June 30, 1976. It had been prepared under phase-in procedures of the Water Resource Council Principles and Standards. Subsequently the Maryland Water Resource Administration on September 14, 1976, indicated that a hydrologic study of the groundwater resources in the project area would need to be conducted before it could approve a plan development permit and other permits needed for installation of the impoundment structure. The plan was withdrawn from OMB in April 1977. Once the groundwater resource has been explored, and if the selected plan remains an impoundment, then the watershed plan and Environmental Impact Statement will need to be revised accordingly to reflect any changes in planning standards since its original development.

TERMINATED

LITTLE AND MIDDLE PATUXENT WATERSHED

Application number - 28

Location - Howard County

Subwatershed of - Chesapeake Bay

Drainage area - 70,000 acres

Sponsored by - Howard Soil Conservation District
Howard County Council

Application approved by State Committee - June 7, 1965

Planning authorized - February 24, 1969

Planning terminated - November 1979

Project purposes - Flood Prevention
Recreation
Watershed protection

Planned measures - 1 multiple purpose impoundment
Dikes
Flood proofing

Status - Due to the low level of federal financial assistance to the proposed project, planning has been terminated. A final report providing recommendations to relieve flood problems in residential areas as well as other technical information was published in September of 1979.

SUSPENDED

CATOCTIN CREEK WATERSHED

Application number - 29

Location - Frederick County

Subwatershed of - Potomac River

Drainage area - 95,000 acres

Sponsored by - Catoctin Soil Conservation District

Application approved by State Committee - October 15, 1965

Planning authorized - July 22, 1969

Planning suspended - September 6, 1973

Project purposes - Flood Prevention
Watershed protection

Status - Detailed planning assistance was suspended as of September 6, 1973 due to problems encountered in conducting geologic investigations and lack of consolidated support for the project by the Frederick County Government.

SUSPENDED

BIG AND LITTLE ELK CREEK WATERSHED

Application number - 33

Location - Cecil County, Maryland; Chester County, Pennsylvania

Subwatershed of - Chesapeake Bay

Drainage area - 68,430 acres

Sponsored by - Cecil Soil Conservation District
Cecil County Commissioners
Town of Elkton
Chester County Soil and Water Conservation District (PA)
Chester County Commissioners (PA)

Application approved by State Committee - May 20, 1960

Planning authorized - October 5, 1970

Planning suspended - June 1976

Project purposes - Flood Prevention
Municipal Water Supply
Recreation
Watershed protection

Planned measures - 3 multiple purpose dams
Land treatment

Status - To date no agreement has been reached on the use of water by Chester and Cecil County officials. Planning activity was suspended in 1976 until an agreement is reached on water rights.

TERMINATED

PISCATAWAY CREEK WATERSHED

Application number - 34

Location - Prince Georges County

Tributary to - Potomac River

Drainage area - 42,000 acres

Sponsored by - Prince Georges Soil Conservation District
Prince Georges County
Maryland-National Capital Park and Planning Commission

Application approved by State Committee - June 12, 1967

Planning authorized - October 20, 1972

Planning terminated - November 1978

Project purposes - Flood Prevention
Recreation
Watershed Protection

Planned measures - Multiple purpose impoundments

Status - In September 1978, a final Preliminary Investigation report was published. The report indicated that the watershed was not eligible for PL-566 assistance and due to benefit cost ratios less unit or lack of flood prevention benefits, and therefore planning has been terminated.

SUSPENDED

BEAVER DAM CREEK WATERSHED

Application number - 40

Location - Wicomico Creek Watershed

Subwatershed of - Chesapeake Bay

Drainage area - 16,384 acres

Sponsored by - Wicomico Soil Conservation District
Wicomico County Commissioners

Application approved by State Committee - November 1955

Planning authorized - January 6, 1959

Planning suspended - February 9, 1959

Project purposes - Flood Prevention
Agricultural Water Management (Drainage)
Watershed Protection

Status - SCS suspended detailed planning in 1959 when the channel system was improved under an ACP pooling agreement.

MARYLAND
SMALL WATERSHED PROGRAM
STATUS

Application Number	Watershed Name	Status[1]	Size (Acres)	Application Approved by State Committee	Approved for Planning	Plan/ EIS Completed	Project Approved for Operations	Project Completed	Project Costs PL-566	Project Costs OTHER	Project Costs TOTAL
1.	Little Deer Creek	C	10,112	11-54	2- 9-55	5-56	9-13-56	6-30-70	282,443	65,886	348,329
2.	Little Youghiogheny River	C	26,275	2-55	4-15-55	3-56	3-14-57	12-31-76	1,770,544	852,496	2,623,040
3.	Timmonstown Branch	C	8,655	3-55	8-25-55	2-57	5-21-57	6-30-63	203,745	150-263	354,008
4.	Gilbert Run	C	28,622	10-55	1- 6-56	12-58	8- 7-59	12-31-76	2,946,597	702,662	3,649,259
5.	Upper Rock Creek	C	38,765	12-56	1- 8-57	12-62	6-20-63	6-30-73	1,414,322	2,822,880	4,237,202
6.	Little Antietam	T	20,119	5-57	4-15-58	-	-	-	-	-	-
7.	Little Beaver	T	5,500	5-57	4-15-58	-	-	-	-	-	-
8.	Long Marsh	C	27,363	7-57	4-15-58	1-60	8-31-60	6-30-75	1,021,901	407,992	1,429,893
9.	Marshyhope Creek*	O	40,240	9-26-57	6- 6-58	1-64	8-19-64	-	4,578,154	2,282,428	6,860,582
10.	Aydelotte	C	12,470	9-59	8-15-61	8-62	8-30-62	7- 1-71	520,132	260,000	780,132
11.	Ninepin Branch	C	6,300	7-26-61	6-18-62	3-63	4- 1-63	6-30-68	167,384	94,843	262,227
12.	Franklin Branch	C	3,162	7-26-61	5-20-63	3-64	6-25-64	5-31-69	82,461	55,204	137,665
13.	Coonfoot Branch	C	3,752	7-26-61	5-20-63	4-64	6-30-64	5-31-69	89,795	58,708	148,503
14.	Shingle Landing	O	11,670	7-26-61	10-23-67	8-68	11-26-68	-	888,274	475,574	1,363,848
15.	Dividing Creek	O	41,900	7-26-61	7-15-68	12-73	7-19-74	-	1,747,167	1,047,420	2,794,587
16.	Upper Choptank River	O	10,260	11- 6-61	6-18-62	5-65	9-10-65	-	1,183,377	724,072	1,907,449
17.	Corsica River	T	15,865	7- 2-62	7-26-65	-	-	-	-	-	-
18.	Rehobeth	AP	5,000	7- 2-62	-	-	-	-	-	-	-
19.	Marumsco	AP	14,000	7- 2-62	-	-	-	-	-	-	-
20.	Turkey Branch	AP	3,000	7- 2-62	-	-	-	-	-	-	-
21.	Kings Creek	AP	9,096	7- 2-62	-	-	-	-	-	-	-
22.	Upper Manokin	O	7,883	7- 2-62	2-15-65	10-65	12- 1-65	-	731,187	628,140	1,359,327
23.	Western Run	S	55,000	8-13-62	-	-	-	-	-	-	-
24.	Passerdyke	C	7,840	11-15-63	7-26-65	4-66	5-24-66	6-30-76	526,966	189,000	715,966

MARYLAND
SMALL WATERSHED PROGRAM
STATUS

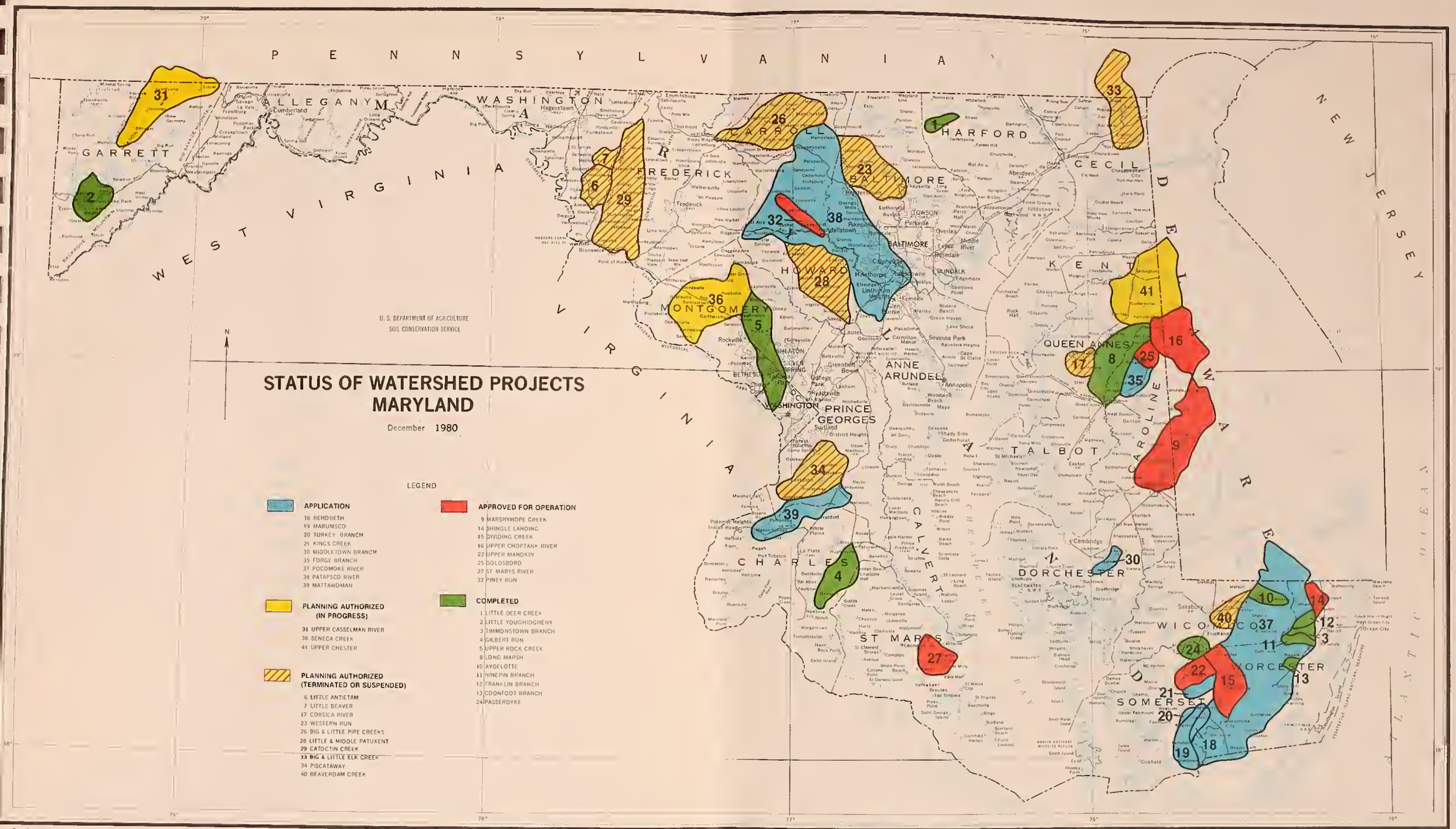
Application Number	Watershed Name	Status[1]	Size (Acres)	Application Approved by State Committee	Approved for Planning	Plan/ EIS Completed	Project Approved for Operations	Project Completed	Project Costs PL-566	Project Costs OTHER	Project Costs TOTAL
25.	Goldsboro	O	9,250	12-20-63	9-19-66	7-67	8-25-67	-	1,008,609	604,860	1,613,469
26.	Big & Little Pipe Creek	S	123,520	12- 4-64	12-18-67	6-76	-	-	2,862,500	3,539,500	6,402,000
27.	St. Mary's River	O	20,000	6- 7-65	7-25-66	6-69	9-29-70	-	3,903,485	4,594,356	8,497,841
28.	Little & Middle Patuxent	T	70,000	6- 7-65	2-24-69	-	-	-	990,300	4,053,000	5,043,300
29.	Catoctin Creek	S	95,000	10-15-65	7-22-69	-	-	-	2,679,100	2,309,400	4,988,500
30.	Middletown Branch	FE	6,748	10-15-65	-	-	-	-	264,540	95,600	360,140
31.	Upper Casselman River	P	84,100	2-21-66	12- 9-69	-	-	-	1,820,200	2,630,300	4,450,500
32.	Piney Run	O	11,700	2-21-66	4-10-67	5-68	8-27-69	-	887,617	2,335,000	3,222,617
33.	Big and Little Elk Creeks	S	68,430	5-20-66	10- 5-70	-	-	-	-	-	-
34.	Piscataway Creek	T	42,000	6-12-67	10-20-72	-	-	-	-	-	-
35.	Forge Branch	FE	14,500	6-17-68	-	-	-	-	-	-	-
36.	Seneca Creek	P	82,479	2-17-69	6-30-75	-	-	-	943,600	1,877,100	2,820,700
37.	Pocomoke River	AP	234,000	12-15-69	-	-	-	-	-	-	-
38.	Patapsco River	AP	236,315	12-57	4-15-58	-	-	-	-	-	-
39.	Mattawoman Creek	FE	50,468	3-15-71	-	-	-	-	-	-	-
40.	Beaverdam Creek	S	16,384	11-55	1- 6-56	-	-	-	-	-	-
41.	Upper Chester River	P	90,000	1-20-72	2-10-77	-	-	-	2,702,000	2,441,000	5,143,000

1. C = Completed
O = Operations
P = Planning
FE = Field Examination
AP = Application Pending
S = Suspended
T = Terminated

2 Costs are based on best available source e.g. work plan, 207 report etc. (nominal dollars).

* Delaware has administrative responsibilities. Maryland acreage and costs shown here.

JANUARY, 1980



Compiled, edited, and published by the Geological Survey
1927 North American datum

SOURCE DATA
U S Dept of the Interior—Geological Survey topographic maps
U S Dept of the Army—Corps of Engineers topographic maps

1-13024

USDA SCS LANHAM, MD 1980

RIVER BASIN STUDIES

COMPLETE

Delmarva River Basin Survey - The study area includes all of the Maryland Eastern Shore below the Chesapeake and Delaware Canal, the State of Delaware below the Canal, and the Virginia Eastern Shore. The area covers 7,500 square miles, is about 174 miles long, 74 miles wide at the widest point, and includes approximately 3,558,000 acres of land and 1,282,000 acres of water.

The purpose of the study was to evaluate the water and related land resources; identify problems associated with their use and development; and propose alternatives for the orderly development of these resources.

Specific study objectives were to:

1) Improve water and related land resource management

2) Improve municipal, industrial, domestic, and irrigational water supply

3) Enhance and increase recreational opportunities

4) Maintain and enhance fish and wildlife habitat

5) Improve water quality

The study findings and conclusions suggests that a coordinated plan is needed to meet the water and land resource problems and to assure that the conflicts and complementary situations between agricultural drainage projects and environmental concerns are recognized. A suggested plan was displayed emphasizing early action measures that can resolve some of the conflicts.

Management tools resulting from the study included:

1) Updated land use study by major CNI sub-basins

2) Delmarva Wildlife Habitat Analysis System

3) Wildlife Biologic Priority Areas (mapped by CNI sub-basin)

The Patapsco River Basin Study was completed in 1980. It is the culmination of a 20-month study coordinated through the Baltimore Regional Planning Council and the USDA Soil Conservation Service. Many other agencies of local, state, and federal governments have cooperated in bringing the report to this stage.

The Patapsco River Basin Study area includes the watersheds of both the Patapsco River and Gwynns Falls. It is located in Anne Arundel, Baltimore, Carroll, and Howard Counties, and Baltimore City.

Most of the water resource problems in the study area relate to urban flood damage along the lower Patapsco and its tributaries, the main stem of Gwynns's Falls, and Maiden's Choice Run. At the initiation of the study in 1978, it was determined by the Patapsco River Basin Coordinating Committee that the major emphasis should be on solving the flooding problems. Thus, the major emphasis of this study was on the flooding problems and possible solutions, with brief discussions of problems in water supply, water quality, erosion and sedimentation, and recreation.

The objectives of the study were: 1) to determine whether a feasible PL-566 flood prevention project existed anywhere in the Study Area, 2) if a project existed, were there potential sponsors for such a project and was it environmentally acceptable, and 3) if a project did not exist, to make recommendations about what other courses of action could be followed.

The initial effort of the study was to inventory the flood damages. In order to do this, it was necessary to determine the flood levels and the associated damages.

Hydrologic and hydraulic models were developed in cooperation with the Maryland Water Resources Administration. These models were used to determine flood levels for Tropical Storm Agnes, plus the 100-year frequency flood for both present and future land uses.

Flood damages were determined using a damage survey conducted by the U.S. Army Corps of Engineers in conjunction with additional surveys done during the study. This information was then combined with the flood level data to determine amounts of flooding damage for Agnes, the 100-year flood, and lesser floods.

The conclusions reached by the flood damage analysis indicate that although flood damages are high during major floods, these floods do not occur frequently. The 10 percent chance (10-year frequency) flood causes minimal damage with the 1 percent chance (100-year frequency) flood causing relatively major damage, thus making the average annual damages low.

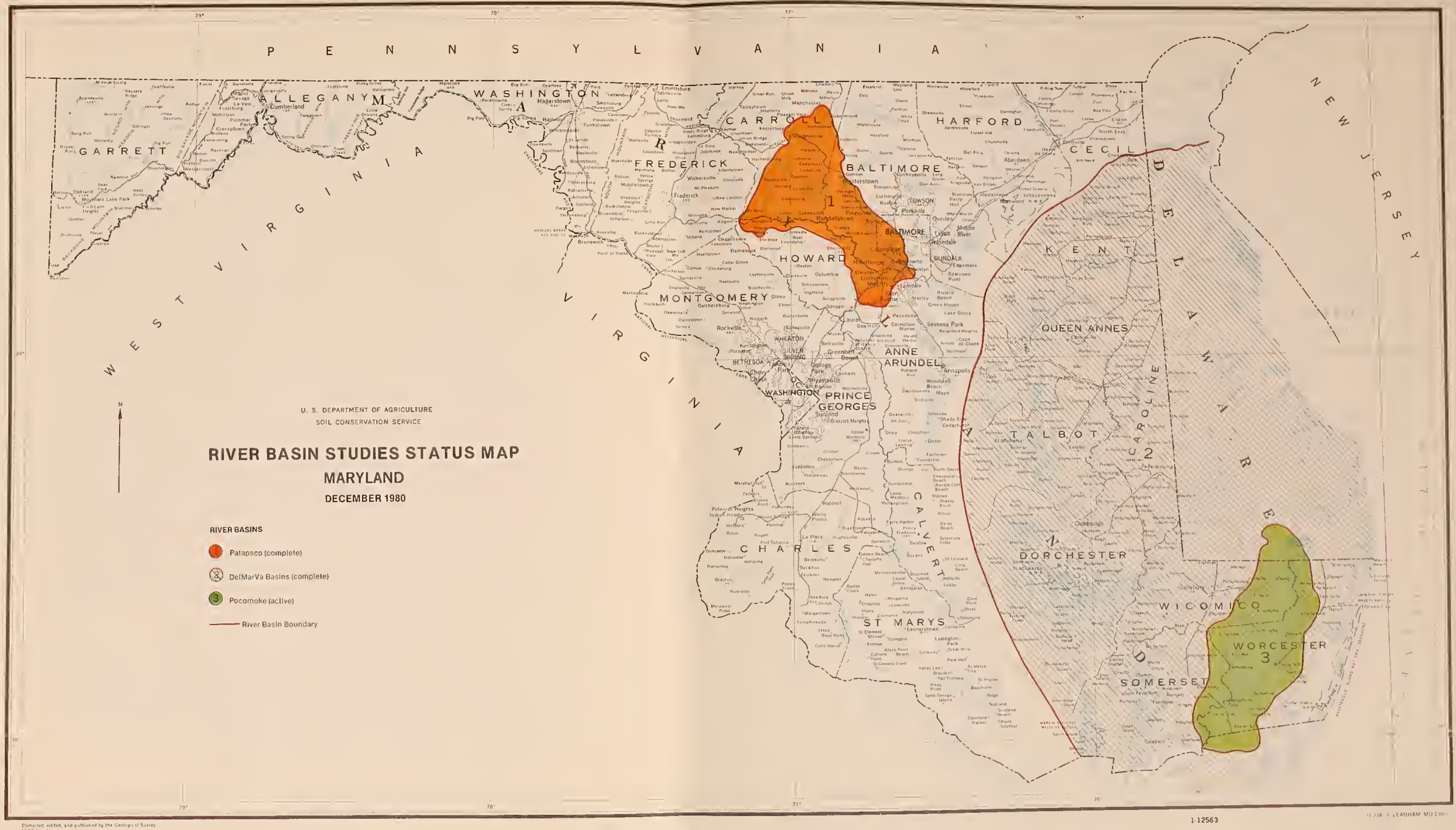
Based on the procedures for economic analysis set forth in the Water Resources Council's Principles and Standards, it was determined that at this time there is no feasible structural flood prevention project under authority of the Watershed Protection and Flood Prevention Act, PL 83-566, as amended. A federally assisted structural flood prevention project must have economic benefits exceeding costs.

No structural alternative examined during this study meets this criterion. However, a nonstructural project may be feasible for portions of the study area.

The final report outlined recommendations to help solve identical problems. The Baltimore Regional Planning Council has organized a committee from effected jurisdiction, state and federal agencies to implement the study recommendations.

ACTIVE

The Pocomoke River Special Study is USDA cooperative study involving the states of Virginia, Maryland and Delaware. The 310,000 acre study area drains into the Chesapeake Bay. The study will develop a comprehensive management plan for the river and its tributaries through coordination with Maryland Department of Natural Resources and their efforts to develop a Scenic River Plan.


PENNSYLVANIA
NEW JERSEY
WEST VIRGINIA
VIRGINIA
DELAWARE
ALLEGANY
WASHINGTON
GARRETT
FREDERICK
CARROLL
HARFORD
CECIL
BALTIMORE
BALTIMORE
TOWSON
HOWARD
MONTGOMERY
ANNE ARUNDEL
KENT
QUEEN ANNES
TALBOT
CAROLINE
DORCHESTER
WICOMICO
WORCESTER
SOMERSET
PRINCE GEORGES
CHARLES
ST MARYS
CALVERT
WASHINGTON
1
2
3
U. S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
RIVER BASIN STUDIES STATUS MAP
MARYLAND
DECEMBER 1980
RIVER BASINS
Patapsco (complete)
DelMarVa Basins (complete)
Pocomoke (active)
River Basin Boundary
N
Compiled, edited, and published by the Geological Survey
1927 North American datum
SOURCE DATA
U.S. Dept. of the Interior Geological Survey topographic maps
U.S. Dept. of the Army Corps of Engineers topographic maps
40 Miles
1-12563

FLOOD HAZARD STUDIES

These studies provide flood hazard information to local authorities for their use in flood plain management. Date is given for floods ranging from the 500-year to 2-year event. Flood hazard studies are performed by the Soil Conservation Service in cooperation with the Maryland State Department of Natural Resources, Floodplain Management Division. Studies are requested by local authorities and performed with priorities established by the State.

Complete

1. Western Run and Tributaries, Baltimore County, Maryland.

   The study gives data on the following streams. Western Run (12.5miles), Beaverdam Run (3.3 miles), Piney Run (1.7 miles), Black Rock Run (2.5 miles), Delaware Run (23.1 miles), McGill Run (1.3 miles), Indian Run (2.0 miles), Slade Run (2.0 miles) and Longnecker Run (0.8 miles). The study was completed in 1975.

2. Little Catoctin Creek and Tributaries, Frederick County, Maryland.

   Date is given for 8.6 miles of Little Catoctin Creek and for nine tributary streams totaling 9.0 miles in length. The report was completed in 1977.

3. Collington Branch, Prince Georges County, Maryland.

   Topographic, hydraulic, hydrologic and flood plain resource date were collected for the 11 mile reach of Collington Branch from the City of Bowie to the City of Upper Marlboro and for Black Branch and East Branch, tributaries to the main stream. The study was completed in 1980.

4. Gwynns Falls, Baltimore City and County, Maryland.

   Topographic, hydraulic, hydrologic and flood plain resource data were collected for the 20-mile reach of Gwynns Falls from Reistertown to Baltimore Harbor and for its tributaries Red Run, Scotts Level Run, Horsehead Branch and an unnamed tributary. The study was completed in 1981.

Active

5. Mattawoman Creek, Prince Georges and Charles County, Maryland.

   This study includes the flood plain along 34 miles of Mattawoman Creek and its tributaries. The study should be completed in 1981.

FLOOD INSURANCE STUDIES

Flood insurance studies provide information to enable the determination of flood hazard areas and actuarial flood insurance rates for communities participating in the National Flood Insurance Program. The studies are performed by the Soil Conservation Service under contract to the Federal Emergency Management Agency (FEMA) by the authority of the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973. The level of detail and the extent of the studies are agreed to by local authorities and by FEMA. The studies provide mapping for the 500-year and 100-year flood plains and water surface profiles for flood events ranging from the 500-year to 10-year events.

Complete

1. Little Paint Branch, Prince Georges County, Maryland.

   This study covered 6.2 miles of the stream beginning at University Boulevard and ending at the Prince Georges - Montgomery County line. Little Paint Branch is a tributary of the Northeast Branch of the Anacostia River. The study was completed in 1971.

2. Indian Creek, Prince Georges County, Maryland.

   Like Little Paint Branch, Indian Creek is a tributary to the Northeast Branch of the Anacostia River. The study included the 5.3 mile stream reach from Greenbelt Road to Ammendale Road and was completed in 1971.

3. Collington Branch, Prince Georges County, Maryland.

   About 11 miles of Collington Branch from Route #197 at Bowie to its confluence with Western Branch was covered by this study in 1971.

4. Tinkers Creek Prince Georges County, Maryland.

   The study covered some 8.1 miles of Tinkers Creek from Old Branch Avenue to its confluence with Piscatway Creek and was completed in 1971.

5. Pea Hill Branch, Prince Georges County, Maryland.

   This stream, a tributary of Tinkers Creek, was studied for 3.5 miles from Maryland Route #5 to its mouth. The study was completed in 1971.

6. Selected Streams and Tidal Areas, Worcester County, Maryland.

   The study area was defined as that area in the county south of Bishop, east of Route #610, north of Route #376 and west of the Isle of Wight Bay. The streams studied were:

a. Birch Branch (3.8 miles), Middle Branch (4.6 miles) and Church Branch (3.5 miles) of Shingle Landing Prong of St. Martins River.

b. Windmill Creek (1.1 miles) and tributary (0.4), Spring Branch (0.6 miles) and two tributaries (0.5 miles and 0.3 miles) also of St. Martins River.

c. Beaverdam Branch (about 0.9 miles) and its tributary (about 0.6 miles) of Manklin Creek.

d. Taylorville Creek (2.5 miles) and two unnamed tributaries (1.0 miles and 0.3 miles) plus Crippen Branch (2.5 miles) tributary to Turnsville Creek.

e. Herring Creek (1.1 miles)

f. Kits Branch (2.7 miles) and tributaries (0.3 miles, 0.4 miles, and 1.0 miles) of Trappe Branch.

Tidal areas were also studied. The report was completed in 1971.

Active

7. Town of Betterton, Kent County, Maryland

This study will cover 1.4 miles of coastline affected by tidal flooding, and is expected to be completed in 1981.

8. Town of Rock Hall Kent County, Maryland.

This study will provide data for 3.7 miles of coastline with tidal flooding and delineate the 100-year flood plain for 0.1 miles of Gray's Inn Creek within the town limits. The study should be completed in 1981.

9. Town of Chestertown, Kent County, Maryland.

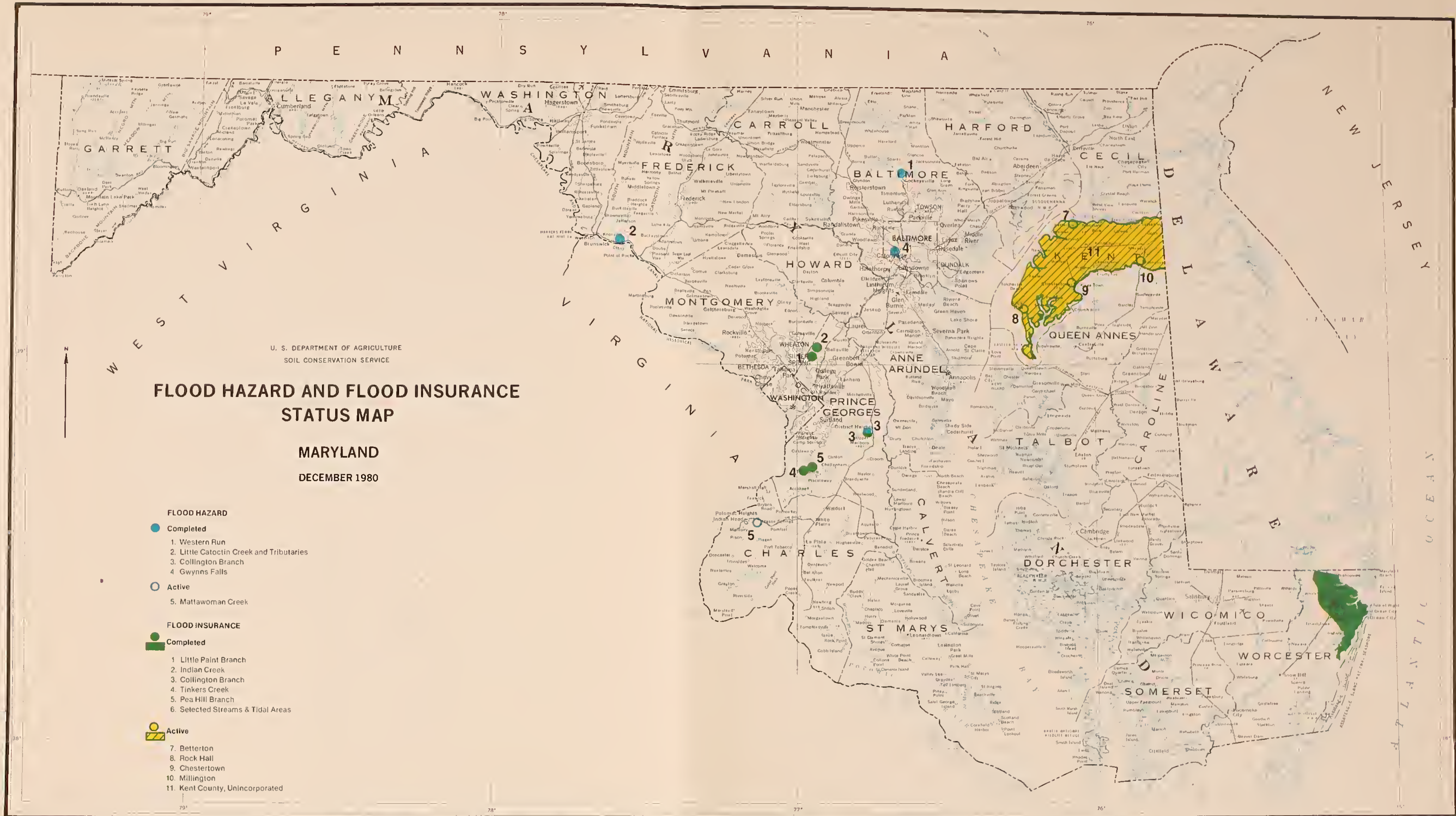
This study will include data for 1.3 miles of the Chester River and 0.6 miles of Radcliffe Creek within the town limits. Completion should be in 1981.

10. Town of Millington, Kent County, Maryland.

This study will provide data for 0.9 miles of the Chester River through the community. About 0.1 miles of Cypress Branch will be studies to determine the 100-year flood plain. The study should be complete in 1981.

11. Kent County, Unincorporated, Maryland.

This study will cover 36 miles of coastline affected by tidal flooding from the Chesapeake Bay and the Chester River. Sixty-three miles of streams within the county will be studied by detailed methods and another 92 miles of streams will have the 100-year flood plain delineated by approximate methods. The study should be complete in 1982.



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